

Motorists! You'll Find News and Ads That Will Eliminate Your Worries

MOTORISTS' PROBLEMS

Solved for Readers of The News-Times

By WILLIAM H. STEWART, JR.

Motor Department—I have a Dord in which I have noticed for some time a jerk and a click in the drive shaft when put in gear low or reverse, and just as the car moves it makes this noise. Do you think this can be remedied and how? I also have trouble with starting my car in the morning even in warm weather. It does not seem to get any fire. Could it be in the platinum points that stick? Thanking you for any information concerning my trouble, and hoping it will eliminate it all, I am,

R. W.
The click may be caused by a loose pinion gear or badly worn axle drive shafts. Jack up the rear wheels and trace the source of the vibration. If you do not feel competent to trace and eliminate the lost motion, then you had better employ an experienced mechanic. You can have trouble in starting unless you keep the points of the distributor clean and also see that your spark plugs are clean and the points correctly adjusted.

Motor Department—I am a daily subscriber and have been reading your answers to Motorist Queries. I have a Saxon Six 1916 model which has been laying up for some time, but now have it running again, but cannot get my self starter to turn engine over enough to start. Will only turn over a couple of times, then seems to hang up. Have new U. S. L. battery which registers full charge; all wires tight. Please answer in your motor column. SCHUBERT.

Perhaps the commutator of the starting motor is corroded and the brushes do not make good contact. Since the car has been idle for some time this corrosion would take place and cause trouble. Also see that all the electrical connections are not only tight, but free from corrosion.

Motor Department—Please let me know through your valuable department how to time my Paige engine. On bottom of frame is a line that corresponds with a line on balance wheel. It has letters D, C, No. 1 and 4 and D, C, No. 2 and 3, etc. When No. 1 and 4 on balance wheel is on line with frame No. 1 piston is on bottom center. Thanking you, I am,

F. J.
It does not seem right that 1 and 4 should be on bottom center with the markings 1 and 4 line up with the pointer. Usually top center indicated. It is barely possible that the fly-wheel has been moved a half turn at some time while the engine has been undergoing repairs. However, you can easily determine this by checking up on the valve timing. The exhaust valve closes about 10 degrees past top center and then the inlet valve opens immediately or about 12 degrees past top center. With these points determined the opening of the exhaust and closing of the intake will follow respectively.

Motor Department—I have a six cylinder car that has just been overhauled and when you first start engine it will stall. With the gas one-third on the engine does not start very good. Before I had it fixed it never did this. The timer is set to fire ahead. The clutch has a surging noise when first started. Please state where my trouble is. R. W.

All the bearings are tight and you will have this trouble until they become more free. Better drive the car slowly for a few hundred miles and then you can obtain better adjustment of carburetor, etc.

Motor Department—I have a six cylinder car that had run 700 miles since six quarts of new oil was put in and the gauge showed 2-3 full and the oil pump gauge registered 3 at 15 miles. I burned out the bearing in No. 1 cylinder connecting rod. Please state what caused it and what can be done to avoid it happening again. H. W.

Keep plenty of oil in the crank case so that gauge will show full. Perhaps one of the bearings was set up too tight. This would take some time to wear in even with careful driving. Would suggest that you change the oil in the crank case and use only oil of a high grade. Poor lubricating oil and a tight bearing undoubtedly caused the trouble. Some engine makers recommend that oil be changed every 500 miles.

Motor Department—The other day while cleaning carbon from my Ford, I noticed that in the second cylinder wall there was a groove about 1-16 in. deep half way down cylinder wall and about 1 in. wide. Can you tell me if this groove is supposed to be there, or is cylinder scored? Is there any harm in running the engine like this? I don't seem to lose any power or compression at all. Thanking you in advance, I remain,

J. R.
The cylinder is scored and it is surprising that no loss of power has been noted. A loose wrist pin has caused the damage and it would be advisable to have the source of trouble eliminated. If you continue to operate the engine in this condition further damage will result and then the cylinder may be beyond repair. Better have the matter attended to immediately.

Motor Department—I have a 1916 Dodge which runs fine and seems to be in perfect condition, except when pulling in high gear up to 16 miles per hour it develops a grind which sounds like gears. When it attains a speed of 16 or 17 miles per hour noise stops. Have had a Dodge service man look at rear end, adjusted pinion gear, also looked at transmission, but said they were all O. K. Could you tell me where this noise could be? X. Y. Z.

A trouble of this kind is difficult to locate and would suggest that you take up all the floor boards and have your service man try to locate the cause while you operate the car under conditions which most aggravate the noise. It is the writer's opinion that a badly worn or defective bearing in the transmission or differential drive is causing the trouble.

Motor Department—I have an Olds six cylinder car which has given me a lot of trouble by pumping oil and thereby fouling the spark plugs, and on advice of a friend I installed new

piston rings which entirely eliminated that trouble, but since then another trouble has developed, viz. gasoline by some unknown reason to me gets into the crank case sufficient to thin the oil, thereby spoiling the lubricating qualities of same. About two weeks ago I drained the crank case and put in two quarts of new oil (heavy) and today drained it out and had at least 5 1/2 pints of thin oil adulterated with gasoline. If you can assist me by suggesting a remedy for same through your column I will appreciate it very much. F. R.

Piston rings are supposed to form a tight seal between the piston and the cylinder thereby preventing oil and gas from escaping past the pistons. More or less gasoline will escape past the piston into the crank case under normal conditions, but if you use the choke considerably or drive with an overrich mixture too much raw gasoline finds its way into the crank case and thins the oil. Use the best oil you can buy and drain the case about every 1,000 miles. See that the breather tubes of the crank case are open to relieve any pressure within the crank case. Adjust carburetor as lean as consistent with good results. If gasoline still passes the pistons in sufficient quantities to cut the oil after reasonable service, then the rings must be at fault. To overcome this trouble, you may find it necessary to have the cylinders re-ground and new pistons with new rings properly fitted.

Motor Department—Will you please give me advice on my Ford? I have had the cylinder re-bored, new pistons and rings put in, valves ground and adjusted, and there is good compression. There is a hot enough spark at each cylinder to burn a hole through a couple of sheets of paper, and the carburetor is about six months old, and it seems to be O. K. and does not leak gasoline. When I run it along on level ground the car at times goes on level jerks and there is a buzzing sound in the cylinders that diminishes as I close up a little on the carburetor adjustment. In going up a steep hill it will miss an explosion once

in a while. The engine when running idle throws a dense smoke behind. I have tried all kinds of adjustments on the carburetor and they do not seem to help. The engine acts as if the mixture was not getting enough air supply, but there is no adjustment for the air that I know of on the Holley carburetor. I have changed the quality of gasoline and I keep my oil level at the half way mark. Will you please inform me what ails the thing, as I am out of patience with it? Also can you tell me how to center the road wheel gear for the speedometer? K. B.

From what you have stated the trouble appears to be in the carburetor. Perhaps the air intake gate is partly clogged or the air gate lever does not set properly and the air supply to carburetor is partly cut off. Also see that gasoline in the float chamber is not too high. Unless you understand how to test, and make proper adjustments to the carburetor as suggested above, it would be advisable to let a good carburetor service man do the work for you. Also check up the valve timing. Special Ford gears may be purchased which fit the hub flange and therefore are centered. Otherwise you will have to locate the exact center with a compass.

Motor Department—I noticed a mechanic in writing up my car arranged for the cylinders to get their spark in 1, 2, 3, 4 order. Is that the way all four cylinder engines work? W. C.

No. A four cylinder motor must either fire 1, 2, 4, 3, or 1, 3, 4, 2, because the crankshafts of a four cylinder engine are made so that the pistons No. 1 and 4 travel in unison, and No. 2 and No. 3 also in unison at 180 degree from No. 1 and 4. It has been found by experiment that there is less vibration in this arrangement than there would be if either directly opposite No. 2 and No. 4. The camshaft construction decides the above order of firing. The ignition wires must be placed in accordance.

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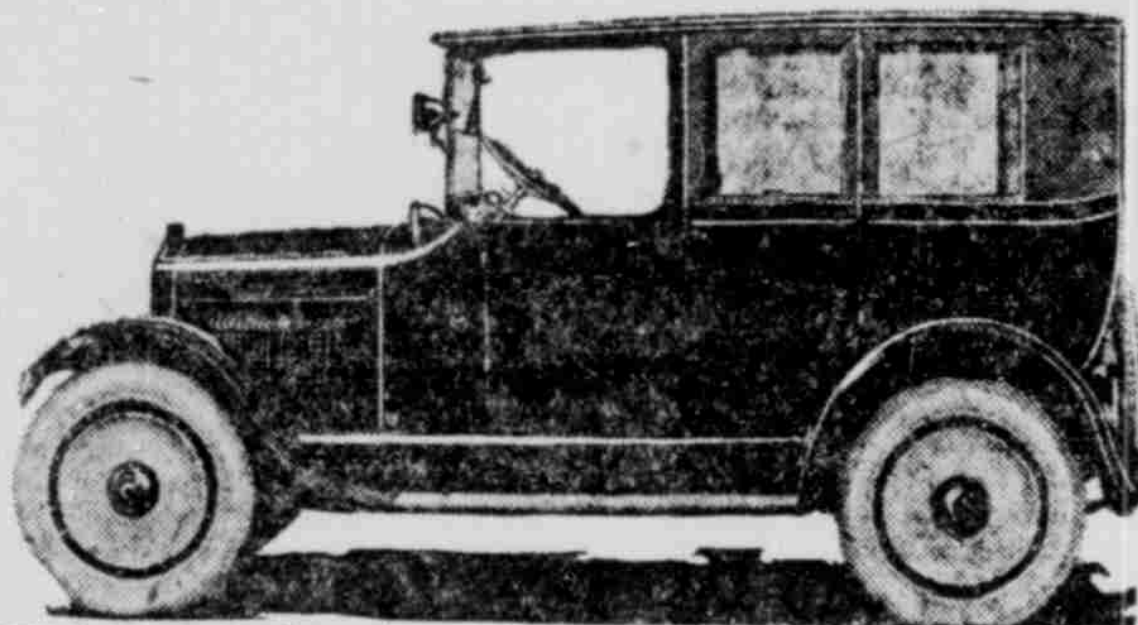
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New Taxicab On Market By Reo Motor Company

Car Designed to Withstand Heavy Wear to Which Type is Subjected.

A new taxicab has just been announced by the Reo Motor Car Co. The body of the new cab is designed to meet the severe service which this class of vehicle is subjected to. Every item of its construction is specified to give the



greatest amount of service, and to eliminate all unnecessary expense. The frame work of the body is of selected ash and maple. The panels are of twenty gauge steel fitted so they can be easily removed if necessary.

Care should be exercised not to use hard water in the cooling system. Water containing minerals will cause a scale to form on the inner walls of the whole cooling system and eventually induce overheating. Soft water or clean rain water is best to use.

Do not imagine that you have done your duty to the cooling system by merely keeping the radiator filled with water. Some day you will be troubled with overheating and will wonder how it came about. So take off cover of radiator occasionally while engine is running and see if water is moving. If it is coming toward you with considerable force the pump is operating, but if no movement occurs the pump has stopped.

The top is of slatted construction, covered with sound absorbing fabric which does not vibrate or reflect mechanical noises. The top material is a special heavy canvas coated with water-proof material and is fitted with metal drip mouldings provided to carry away water that might drain off the roof. The chassis is finished with heavy black enamel. The hood is black enameled, also fenders and running boards. The body is painted black below the belt and gray above the belt with a small panel of red in between. The wheels are in gray with black enamel hubs.

The driver's compartment is upholstered in genuine leather, cushion and back. The passengers' com-

partment is upholstered in Spanish gray leather up to the belt or windowline and is black fabric above this line. A sheet of aluminum belt at floor protects the upholstery damaged by passengers' feet and baggage.

The radiator hose connections in the water system of the engine should be frequently inspected. Oftentimes these hose connections look fair on the outside, but they are bad on the inside. When the walls of the hose become decayed they have a tendency to swell and close thereby preventing proper circulation.

If you have not already done so, clean out the cooling system. Dissolve two pounds of washing soda (one pound for Ford or other small engine) in hot water and pour into the radiator, filling up with fresh water. Run the car as usual all day and drain out at night. Fill with fresh water and change again the following day. This will go a long way toward preventing overheating in summer.

'Divining Rod' Finds Auto Noises

Use the divining rod method to locate a knock or other foreign noise in your engine.

It's the way automobile motors are tested in the factories before they are passed on for shipment. The divining rod used is none other than the gear shifting lever. By its use, inspectors can tell whether a new motor is out of perfect tune. It carries the sounds of all parts of the engine to the inspector's ear, and if there is anything wrong in its operation the inspector knows it.

In a room full of running motors an inspector can detect any unusual sound in a single engine by putting his ear to the tip of the gear shifting lever. That's because he knows the note of a perfect motor.

Besides, each particular kind of unusual sound will tell the inspector exactly where it comes from. His ears are trained to distinguish such sounds and locate them.

But for those whose ears aren't as keen as the motor inspector's, there is another kind of divining rod. It is a piece of a broomstick or other wood. Or it may be a long screw driver.

With this simple divining rod foreign noises can be detected not only in the engine but in any other moving part of the automobile. The method of application is simple.

Place one end of the rod against the part which is suspected of making the unusual noise. Then put

the free end in the crook of the thumb and the thumb knuckle against your ear drum.

If the part runs smoothly and nothing is wrong with it, a regular hum will be heard. Otherwise, the hum will be interrupted by a knock or other strange sound.

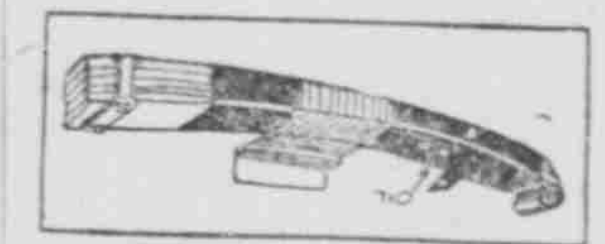
In this way, any fault in the running of the automobile can be located by moving the divining rod from one position to another. Sometimes location of a fault is more difficult than its correction after it is found.

LIMOUSINE—Automobile with a partially enclosed body and a permanent top extending the full length and attached to the windshield. The part behind the driver is fully enclosed. Two low doors and a fixed



SPRING BOOT AND OILER. Car springs may be protected from mud and rust by means of a leather

boot and oiler. Openings are made for oiling, so that the spring leaves are kept lubricated.



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OFFICERS SEARCH FOR CODE OF BOOTLEGGERS. WASHINGTON, May 20.—Government officers are searching for the mysterious code system used by bootleggers in smuggling liquor into the United States. The smugglers have taken to radio to outwit the prohibition agents and are causing much trouble.

—it's not the pack that you carry on your back,—

was the refrain of a song the boys used to sing 'over there.' The point of it all was the heartbreaking grind of that last mile when the end of the journey was uncertain and seemingly far away. It was a LONG mile and a hard mile—a mile that tried your mettle and endurance.

It's the Last Long Mile

that puts the stamp of your approval on a COOPER CORD. When you've been out driving over uncertain rough roads, crashing up against stones and little "shell-holes" you see the end of your trip ahead of you and it is then that you tip your hat to the makers of COOPER CORDS. They've turned out a wonderful tire with a wonderful tube to back it up and strengthen it. There's never any danger of it giving out on the last long mile. There's never any doubt. It's like betting on Dempsey. It's dependable.

And as we have remarked before you should take into consideration that this extraordinary tire costs the same as an ordinary tire.

ROLL IT OVER IN YOUR MIND

Crown Service Co.

110 West Colfax
"BILL" CASS, Prop.
Main 2231

C. C. CONE

116 Lincoln Way West
Mishawaka
Phone—Mishawaka 839

"More Mileage"
"More Smileage"

LIGHT-SIX
Five-passenger, 40 H. P., 112 inch wheel base. Cord tires standard equipment.
\$1045
f. o. b. factory

Thief-proof transmission lock reduces rate of insurance to LIGHT-SIX owners 15 to 20%.

Cowl ventilator controlled from within (closed, insect-proof board and cowl lights).

Your satisfaction with a car depends upon your satisfaction with its performance, appearance, economy, comfort and price.

These are the vital points. And you must get satisfaction in each one if you are to be satisfied with your car as a whole.

Consider the LIGHT-SIX from this angle.

It is essentially the same car as it was when introduced. It was right before it was offered. And it has made good in the service of thousands and thousands of owners. It is dependable. Its L-head motor is powerful, flexible and freer from vibration than any car at anywhere near its price.

Its graceful lines are enhanced by a lasting finish. Cowl parking lights and the cowl ventilator not only add to its good

looks but are necessary for complete satisfaction.

The LIGHT-SIX stands up in service with a minimum of repair expense. This, with low fuel consumption, means satisfactory economy.

We never heard of a LIGHT-SIX that was not comfortable to ride in.

And the price, \$1045 f. o. b. factory, is out of proportion to its value. This price includes the thief-proof transmission lock which reduces the rate of theft insurance to owner 15 to 20 per cent; large plate glass window in one-piece rear curtain, inside and outside door handles and other refinements.

And you get the priceless ingredient—prestige and high standing of the maker—who for seventy years has been building quality vehicles and selling them at fair prices.

Touring, \$1045; 3-Passenger Roadster, \$1045; Coupe-Roadster, \$1375; Sedan, \$1750. All prices f. o. b. factory.

The Studebaker Corporation of America
RETAIL FACTORY BRANCH: LAFAYETTE AND SOUTH STREETS

NILES
199 Front St.
R. E. Cortright, Resident
Salesman.

MISHAWAKA
108 N. Hill St.
H. L. Bowers, Resident
Salesman.

THIS IS A STUDEBAKER YEAR

Studebaker
World's Largest Builder
of Six-Cylinder Cars